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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/823,802

03/30/2001

Gautam Dewan

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03/17/2006

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EXAMINER

HO, DUC CHI

ART UNIT

PAPER NUMBER

2665

DATE MAILED: 03/17/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/823,802

Applicant(s)

DEWAN ET AL.

Examiner

Duc C. Ho

Art Unit

2665

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 January 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-35 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 16-20 is/are allowed.
- 6) ☒ Claim(s) 1-5,7-11,13-15,21 and 23-25 is/are rejected.
- 7) ☒ Claim(s) 6,12 and 22 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

Allowable Subject Matter

1. The indicated allowability of claim 3-5, 9-11, 15, and 26-30 are withdrawn in view of the newly discovered reference(s) to Matsakis et al.(US 2005/0273772); Blassannian (US 6,629,163).

Rejections based on the newly cited reference(s) follow.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102(e) that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

3. The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

4. Claims 1-2, 7-8, 13-15, 21, 23-25 are rejected under 35 U.S.C. 102(e) as being anticipated by Gobuyan et al. (U.S. 5,917,821), hereinafter referred to as Gobuyan.

Regarding claim 1, Gobuyan discloses look-up engine for packet-based network.

loading an instruction word within the micro-controller (the microcode RAM 22-fig. 3 contains 32 bit microcode instruction), the instruction word having a plurality of instruction fields (the microcode instruction includes four fields, col. 12, lines 4-20); and

processing the plurality of instruction fields in parallel, each instruction field related to a specific operation for parsing a packet or encapsulating data to form a packet (the look-up engine can perform up to two tree searches in parallel with microcode instruction, wherein each field of the microcode instruction is inherently related to a specific operation for parsing a packet, see col. 12-line 4-67).

Regarding claim 2, a packet typically includes a protocol header.

Regarding claims 7-8, the claims have similar limitations as claims 1-2, respectively. Therefore, they are rejected under Gobuyan for the same reasons set forth in the rejection of claims 1-2.

Regarding claim 13, the microcode RAM 4-fig. 3 of Gobuyan is a system of a chip.

Regarding claim 14, the RAM buffer 9 (embedded buffer memory) is to store packets or data used in forming packets.

Regarding claim 15, the microcode RAM 4 may receive microcode instruction based on Very Large Instruction Word (VLIW).

Regarding claim 21, this claim has similar limitations as claim 1. Therefore, it is rejected under Gobuyan for the same reasons set forth in the rejection of claim 1.

Regarding claim 23, the instruction or microcode instruction of Gobuyan includes operation fields, wherein each is associated with a set of micro instructions.

Regarding claim 24, the instruction is inherently executed in a plurality of stages.

Regarding claim 25, the stages inherently includes a prefect, fetch, decode, and an execute stage.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103© and potential 35 U.S.C. 102(f) or (g) prior art under 35 U.S.C. 103(a).

7. Claims 3-5, 9-11, 13, 26-28, 30-35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gobuyan, in view of Rothermel et al. (US 2004/0181690), hereinafter referred to as Rothermel.

Regarding claim 3, Gobuyan discloses all claimed limitations, except the instruction word is loaded from a template, the template having a routine associated with each protocol header.

One skill in the art would recognize the advantage of loading instruction word from a template that has a routine associated with each protocol header. The implementation is

performed to enable a system to handle new protocols in an efficient way without a redesign of circuit supporting such new protocols.

Rothermel discloses managing multiple network security devices from a manager device. Rothermel in figure 14A discloses in step 1435 to determine if the command (loading instruction) is to create or modify a template. If so, the routine continues to step 1440 to display a list of possible protocols that may be of interest, see 0109-0113. In other words, Rothermel teaches the claimed limitation of having command (instruction) loaded from a template having a routine associated with each protocol header.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine Gobuyan with Rothermel.

The suggestion/motivation for doing so would have been to enable a system to handle new protocol by loading a command to the template having a routine associated with new protocol.

Therefore, it would have been obvious to combine Gobuyan with Rothermel to obtain the invention as specified in claim 3.

Regarding claim 4, the microcode RAM 4-fig. 3 of Gobuyan is capable of being programmed by adding a new routine to the template of Rothermel.

Regarding claim 5, Rothermel teaches that the new routine is related to a new protocol, see 0112.

Regarding claims 9-11, the claims have similar limitations as claims 3-5, respectively. Therefore, they are rejected under Gobuyan-Rothermel for the same reasons set forth in the rejection of claims 3-5.

Regarding claim 13, the microcode RAM 4-fig. 3 of Gobuyan is a system of a chip.

Regarding claim 26, this claim has similar limitations as claims 1, and 3. Therefore, it is rejected under Gobuyan for the same reasons set forth in the rejection of claims 1, and 3.

Regarding claim 27, Rothermel discloses potential protocols, which include existing protocol, and new protocols, see 0112.

Regarding claim 28, Rothermel discloses the template is programmable so that new routine call can be added.

Regarding claim 30, the template of Rothermel may be stored in the embedded memory RAM 9-fig.3 of Gobuyan.

Regarding claim 31, this claim has similar limitations as claims 1, and 3. Therefore, it is rejected under Gobuyan for the same reasons set forth in the rejection of claims 1, and 3.

Regarding claim 32, Rothermel discloses the flow of a command for creating or modifying a template having a routine for a protocol, see 0109-0113.

Regarding claim 33, Rothermel may have a template associated with a routine created from an external device.

Regarding claim 34, the system of Rothermel may have a template associated with a routine created from an Internet network.

Regarding claim 35, this claim has similar limitations as claim 10. Therefore, it is rejected under Gobuyan for the same reasons set forth in the rejection of claim 10.

8. Claim 29 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gobuyan, in view of Rothermel, and further in view of Balassanian (US 6,629,163).

Regarding claim 29, Gobuyan and Rothermel discloses all claimed limitations, except identifiers to identify routines for parsing a packet.

Balassanian discloses method and system for demultiplexing a first sequence of packet components to identify specific component wherein subsequent componenta are processed without re-identifying components.

The message send routine invokes the demux routine 102-fig.1 to search for and identify the path of sessions that is to process the packet. The demux routine may in turn invoke the label map get routine 104 to identify a sequence of conversion routines for processing the packet, see col. 4, lines 10-18.

Allowable Subject Matter

9. Claims 16-20 are allowed.
10. Claims 6, 12, 22 are objected to as being independent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Duc Ho whose telephone number is (571) 272-3147. The examiner can normally be reached on Monday through Friday from 7:00 am to 3:30 pm.

If attempt to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wellington Chin, can be reached on (571) 272-3134.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (571) 272-2600.

The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

12. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Patent Examiner

A handwritten signature in black ink, appearing to read 'Duc Ho', written over the printed name.

Duc Ho

03-06-06